

AD-A220 587

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

STUDY
PROJECT

DUAL ARMY COUPLES AND THEIR IMPACT ON READINESS

BY

LIEUTENANT COLONEL KERRY G. ADAMS

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

2 APRIL 1990

DTIC
ELECTE
APR 18 1990
S B D
C B



U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

00 04 16 010

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Dual Army Couples and Their Impact on Readiness		5. TYPE OF REPORT & PERIOD COVERED Study Project
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) LTC Kerry G. Adams		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army War College Carlisle Barracks, PA 17013		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Same		12. REPORT DATE April 1990
		13. NUMBER OF PAGES 47
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution is unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The Army is shrinking. Growing public concern for the federal deficit, the perception of a much diminished Soviet threat and ballooning demands for domestic social programs have exerted tremendous pressures on Congress to reduce the Department of Defense budget. One of the key challenges facing the Army's senior leadership today is how to reduce the force structure and maintain an acceptable level of readiness. This study examines the impact of dual Army couples on readiness. Presented in this study is a review of previous studies and applicable literature on dual Army couples. (continued on back)		

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

UNCLASSIFIED

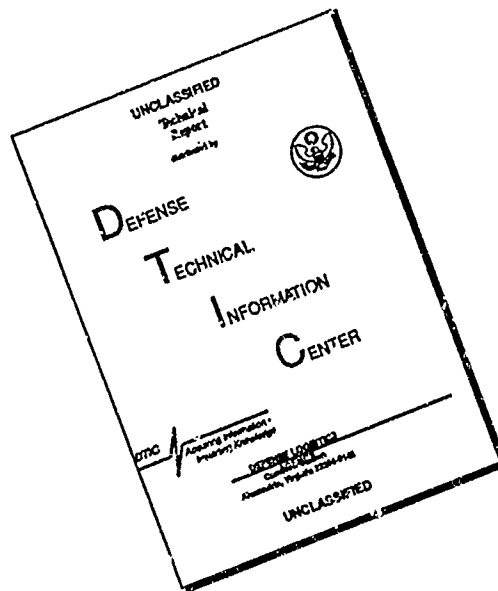
SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

Army policies in regard to assignment of dual Army couples are examined. Professional development issues for dual Army couples are explored in depth with particular emphasis on officer professional development. This study concludes that there is no measurable direct impact on unit readiness. However, an indirect impact on readiness results from conflicting professional development needs of dual Army couples and their twin commitments to the Army and their marriage.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST
QUALITY AVAILABLE. THE COPY
FURNISHED TO DTIC CONTAINED
A SIGNIFICANT NUMBER OF
PAGES WHICH DO NOT
REPRODUCE LEGIBLY.

UNCLASSIFIED

USAWC MILITARY STUDIES PROGRAM PAPER

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

DUAL ARMY COUPLES AND THEIR IMPACT ON READINESS

An Individual Study Project

by

Lieutenant Colonel Kerry G. Adams, SC

Colonel Danny L. Crawford, FA
Project Advisor

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

U.S. Army War College
Carlisle Barracks, Pennsylvania 17013
2 April 1990

UNCLASSIFIED

ABSTRACT

AUTHOR: Kerry G. Adams, LTC, SC

TITLE: Dual Army Couples and Their Impact on Readiness

FORMAT: Individual Study Project

DATE: 2 April 1990 PAGES: 43 CLASSIFICATION: UNCLASSIFIED

→ The Army is shrinking. Growing public concern for the federal deficit, the perception of a much diminished Soviet threat and ballooning demands for domestic social programs have exerted tremendous pressures on Congress to reduce the Department of Defense budget. One of the key challenges facing the Army's senior leadership today is how to reduce the force structure and maintain an acceptable level of readiness. This study examines the impact of dual Army couples on readiness. Presented in this study is a review of previous studies and applicable literature on dual Army couples. Army policies in regard to assignment of dual Army couples are examined. Professional development issues for dual Army couples are explored in depth with particular emphasis on officer professional development. This study concludes that there is no measurable direct impact on unit readiness. However, an indirect impact on readiness results from conflicting professional development needs of dual Army couples and their twin commitments to the Army and their marriage. (SDW)

Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

TABLE OF CONTENTS

	Page
ABSTRACT.....	ii
CHAPTER I. INTRODUCTION.....	1
Definitions.....	3
Limitations.....	4
Assumptions.....	4
Background.....	4
II. ARMY POLICY AND STATISTICAL REVIEW.....	8
Army Policy on Married Couples.....	8
Statistical Review.....	10
III. DIRECT IMPACT OF DUAL ARMY COUPLES ON READINESS.....	14
IV. PROFESSIONAL DEVELOPMENT ISSUES.....	21
V. CONCLUSIONS.....	28
VI. RECOMMENDATIONS.....	30
APPENDIX 1. DMDC PERSONNEL STATISTICS TABLES.....	31
APPENDIX 2. PROFESSIONAL DEVELOPMENT MODEL.....	41
BIBLIOGRAPHY	43

DUAL ARMY COUPLES AND THEIR IMPACT ON READINESS

CHAPTER I

INTRODUCTION

The purpose of this paper is to determine the impact, if any, of dual Army couples on readiness. Increasing international, domestic and fiscal pressures will likely result in a significantly reduced Department of Defense (DoD) budget. Due to the Army's mission to conduct prompt and sustained land combat, a disproportionate share of the reduction may fall upon the Army. Conversely, demand for the maximum readiness for each defense dollar is likely to grow. In the immediate future every aspect of readiness will likely be subjected to close scrutiny by the Army, DoD and Congress. Policies and programs that impact negatively on readiness, even on the margin, are probable candidates for review, revision and/or elimination.

Women have served in the Army throughout our nation's history. Through World War II the operative attitude toward women in the Army had been two fold: free men to fight and provide medical care and services. This attitude was radically altered during the late 1960's and early 1970's as a result of the women's movement and our nation's commitment

to an all volunteer force. These forces resulted in a dramatic increase in the number of women in the Army. Concurrent with this increase in the percentage of women in the Army was a rise in the number of marriages between service members. The growing social acceptance of dual career couples, the rising expectations of women in the work force, economic pressures on individual families and the needs of the services to recruit and retain quality people combined to produce a substantial number of dual Army couples in which both members had long term career aspirations.

General John A. Vessey, then Chairman of the Joint Chiefs of Staff, stated to the House Armed Services Committee on 2 February 1984:

" The greatest change that has come about in United States forces in the time that I've been in military service has been extensive use of women. That's even greater than nuclear weapons, I feel, as far as our own forces are concerned."(1)

General Vessey was addressing the much larger issue of women in the service rather than focusing on the much smaller issue of dual Army couples. However, the study of dual Army couples cannot be completely divorced from the larger issue of women in the Army. Accordingly, the background section of this chapter will briefly review the growth of and expansion in the roles of women in the Army since World War II.

The readiness of the Army to conduct sustained combat operations on land is supported by its personnel and personnel policies. The growth in the number/percentage of women in the Army and the corresponding growth in the number

of dual Army couples resulted in an evolution of Army personnel policies. It is beyond the scope of this paper to examine these policies in detail except for those policies that deal specifically with the Army Married Couples Program (Chapter II). Also in Chapter II is a brief summary of statistical data focusing on dual Army couples.

Chapter III looks at the direct impact of dual Army couples on unit readiness. Although there has been a lot of speculation that dual Army couples hamper readiness, no studies have shown this conclusively.

In the final analysis the readiness of a unit is heavily dependent upon the collective tactical and technical competence of its soldiers and, particularly, its leaders. The competence of Army leaders is in large measure derived from their professional development over the span of a career. The impact of dual Army couples on this aspect of readiness will be explored in detail in Chapter V. It is the contention of the author that competing demands on dual Army couples result in a less than optimum professional development track for at least one member of the couple and that this indirectly affects unit readiness.

DEFINITIONS

Dual Army Couple: A legally married couple in which each member is a soldier on active duty in the Army. Dual Army couples are of three types: officer-officer couples, enlisted-enlisted couples and officer-enlisted couples.

Dual Service Couples: A legally married couple in which each member is on active duty in different branches of the uniformed services.

LIMITATIONS

This study is limited to the impact of active component dual Army couples and, to a lesser extent, dual service couples on readiness. This study is heavily dependent upon the previous research and study of others. The experience of the author as both a Professional Development Officer at the Army Military Personnel Center and as a battalion commander colored the results of this study.

ASSUMPTIONS

The following assumptions were made in this study:

- o The vast majority of dual Army couple and dual service couple are defacto and dejure marriages.
- o Convenience marriages between service members for purposes of obtaining additional entitlements (i.e., BAS, BAQ) and/or additional liberty (i.e., no requirement to live in the barracks) constitute such a small minority of dual Army/dual service couples as to be insignificant.

BACKGROUND

Women have served in all of the services virtually since their establishment. From the Revolutionary War through the Korean War women have made numerous, significant contributions to the national war effort. Through the Korean War the

roles and functions of women in the service were clearly defined -- free manpower for the fight and provide medical care and services. There was clearly a traditional role that women filled. "At the peak of World War I, approximately 49,000 women were in uniform, 73% of whom were in the Army or Navy Nurse Corps. All were returned to civilian status in 1919." (2) "In World War II approximately 350,000 women served in a wide variety of military occupations but were barred from direct combat and combat units." (3) By 1948 less than 15,000 remained in uniform, again, concentrated in the Nurse Corps.

In 1967 Congress repealed the laws restricting the number of women in uniform. By 1978 the Army had abolished the Women's Army Corps (WAC) and had merged women into the mainstream of the Army. The number of women on active duty rose dramatically from slightly less than one percent of the force in 1969 to slightly under ten percent in 1981, an increase of over 350%. (4) During this time frame emphasis was placed on utilizing women in non-traditional roles. A large number of Military Occupational Specialties (MOS) that had previously barred women were now open to them. The Army policy on the assignment and utilization of women evolved to that which is in effect today (no assignment to Infantry, Armor, or Cannon Artillery and no assignment to units that have the highest probability of direct combat).

This large influx of women, most of whom were single, into male dominated organizations where many of the males

were single resulted in a very foreseeable outcome: romance, courtship and marriage in significant numbers. Today there are roughly 20,000 dual Army couples. The Army is predominately a married force with 54% of all enlisted soldiers married. In general, the more senior a soldier is the more likely he is to be married. Dual Army couples constitute roughly 9% of the married personnel in the Army and are clustered in the mid-officer and NCO grades. (5) In this century the Army evolved from an essentially all male, predominately single force to one that has a significant percentage of women and married soldiers. One effect of this transition has been the tremendous rise in the number of dual Army couples. Could this change have occurred with no impact on readiness? This paper attempts to partially answer this question.

ENDNOTES

1. Statement by General John A. Vessey to the House Armed Services Committee, reported by The Washington Post, 3 February 1984, p.A12

2. Assistant Secretary of Defense-Manpower and Reserve Affairs, Military Women in the Department of Defense, p.1

3. Ibid, p.1

4. Ibid, p.1, 3 and 10

5. Defense Manpower Data Center, Statistical Report Number 521, (see appendix p.31-40)

CHAPTER II

ARMY POLICY AND STATISTICAL REVIEW

The Army's personnel policies must be carefully crafted to meet the needs of today's commanders, provide for the growth and development of tomorrow's leaders and satisfy the requirements of individual soldiers. Fairness in burden sharing and equal opportunity for advancement are the hallmarks of Army personnel policies. A brief review of Army personnel policies that pertain specifically to dual Army couples is therefore in order. To determine the impact of dual Army couples on readiness it is first necessary to determine the number of soldiers in dual Army couples. A very brief statistical review of dual Army couples is included in this chapter to provide the reader with a better understanding of the scope and some of the peculiarities of this issue.

ARMY POLICY ON MARRIED COUPLES

Army policy on dual Army couples is found in Army Regulations 614-30, Oversea Service, 614-100, Officer Assignment Policies, Details and Transfers and 614-200, Selection of Enlisted Soldiers for Training and Assignment. All three regulations make two strong points:

to be eligible for joint domicile assignments dual Army couples must be enrolled in the Army Married Couples Program and Army requirements and readiness goals are the prime factors in assignment considerations. Personnel Command reports a 70-80% success rate in making joint domicile assignments. The Army considers it a successful joint domicile assignment whenever the two members of a dual Army couple are assigned to duty stations within 50 miles or one hour commuting distance of one another. The Army has clearly established Army requirements as the first consideration in making assignments. The high joint domicile success rate provides ample support that the Army has just as clearly established satisfying joint domicile assignment requirements as a high priority.

It should be noted that the Army provides no consideration in the assignment process for couples that are engaged, living together, etc. To be enrolled in the Married Couples Program a couple must be legally married. The timing of marriages between service members is often out of synch with the assignment process. Further, PCS restrictions and time on station guidelines serve as limits to personnel managers' abilities to effect a joint domicile assignment. If these constraints were not in effect, the already high success rate would probably rise substantially, yielding a truer reflection of the Army's commitment to making the joint domicile/Married Couples Program work.

STATISTICAL REVIEW

How many dual Army couples are on active duty today? The following statistical summary tables are provided to give the reader an idea of the scope of this issue. All of the statistics are drawn from information provided by the Defense Manpower Data Center (DMDC). (1) DMDC utilizes the Officer Master File and the Enlisted Master File as the data source for these reports. Some minor discrepancies may exist in the figures due to errors in these data files.

TABLE II-1 ENLISTED SUMMARY

MALE	NUMBER	PERCENTAGE
Single	267,281	45.7
married to non-military	301,355	51.2
married to enlisted	15,379	2.6
married to officer	<u>323</u>	<u>.06</u>
TOTAL	584,338	99.5
FEMALE		
Single	40,331	54.7
married to non-military	18,651	25.3
married to enlisted	14,607	19.8
married to officer	<u>191</u>	<u>.26</u>
TOTAL	73,780	99.8
ENLISTED TOTALS		
Single	307,612	46.7
married to non-military	320,007	48.6
married to enlisted	29,986	4.6
married to officer	<u>514</u>	<u>.08</u>
TOTAL	658,119	99.98

TABLE II-2 OFFICER SUMMARY

MALE	NUMBER	PERCENTAGE
Single	21,861	23
married to non-military	69,879	73.6
married to officer	2,805	3
married to enlisted	<u>396</u>	<u>.4</u>
TOTAL	94,941	100

FEMALE	NUMBER	PERCENTAGE
Single	6,049	49.6
married to non-military	3,208	26.3
married to officer	2,525	20.1
married to enlisted	<u>416</u>	<u>3.4</u>
TOTAL	12,198	99.4

OFFICER TOTALS	NUMBER	PERCENTAGE
Single	27,910	26.4
married to non-military	73,105	69.1
married to officer	4,008	3.8
married to enlisted	<u>815</u>	<u>.8</u>
TOTAL	105,838	100.1

Although Tables II-1 and II-2 are very revealing they do not tell the complete demographic story. For complete details see Appendixes pages 31 through 40. Consider the following points:

- o In the enlisted ranks 84% of dual Army couples are in the ranks of Specialist through Staff Sergeant.

- o In the commissioned officer ranks 77% of dual Army couples are clustered in the ranks of First Lieutenant through Major. When looking at males alone, the concentration is even greater with 51% in the rank of Captain.

o A disproportionately high percentage of Army married females are married to service members:

OF MARRIED POPULATION PERCENTAGE MARRIED TO SERVICE MEMBERS		
	OFFICER	ENLISTED
MALE	4.4%	5%
FEMALE	47.8%	44%

o Teplitzky, Thomas and Nogami found in their study of officer couples that the officers were usually of the same rank but whenever there was a difference the male almost always outranked the female. Further, the male usually had more service time than the female even if of the same rank. (2) Although this study reviewed officer couples, only a similar pattern in the enlisted ranks would not be surprising. This relationship will be of great importance in the discussion on professional development in Chapter IV.

ENDNOTES

1. Defense Manpower Data Center, Statistical Report Number 521, (See Appendix p.31-40)

2. Martha L. Teplitzky, Shelley A. Thomas and Glenda Y. Nogami, Dual Army Career Officers: Job Attitudes and Career Intentions of Male and Female Officers, p.12-14

CHAPTER III

DIRECT IMPACT OF DUAL ARMY COUPLES ON READINESS

There is great change and great instability in the world today. Eastern Europe has undergone dramatic shifts in political and power relationships in the last six months. Instability has frequently lead to hostilities. No one wants war but we must be prepared for it. Will dual Army couples respond to the call and perform as well or better than their counterparts? Short of war we will never have a complete answer to that question but some partial answers are available now.

In August 1976 two American officers were murdered in the Joint Security Area separating the two Koreas. The National Command Authority responded to this incident in a very deliberate and cautious manner. In Korea, U.S./U.N. forces were brought to the highest level of readiness (DEFCON 1). In his account of this incident Brian Mitchell maintains that many women in the wake of imminent war requested transfers to the rear. Mitchell asserts that "Most fully expected to be evacuated in the event of hostilities..." and "others(women) had reported for duty with dependent children in tow, since their arrangements for child

care did not cover the event of war. In some instances, male noncommissioned officers had left their posts temporarily to tend to the safety of their wives and girl friends in other units." (1) In his book Weak Link, Mitchell directs a stinging attack against women in the services and, in particular, in the Army. Mitchell uses his account of this incident as a supporting argument against women in the military. Mitchell argues that the expansion in the roles and number of women in the services was ill-conceived and disastrously implemented. Mitchell concludes that women in the services are incompatible with mission and readiness needs. As previously noted, a significant percentage of female soldiers are married to other soldiers. If Mitchell's account of this incident is accurate and if this could be generalized to the Army as a whole, then the obvious conclusion is that women in the Army and married couples in particular (since many males left their units to tend to wives) are extremely detrimental to war fighting readiness. There appears to be little direct supporting evidence for Mitchell's contention. In fact, the recent Panama invasion indicates that it would be improper to generalize the Korean incident to the Army as a whole.

Although the Korean incident and the Panama invasion (data not available yet) provide some useful insights, neither involved mobilization, massive reinforcement nor large scale land combat. What would be the response of dual Army couples in the event of mid to high intensity conflict?

Three studies provide an indication of the likely response.

The Army Research Institute (ARI) has conducted several studies and surveys on dual Army couples. These studies have generally focused on retention rather than readiness.

Illustrative of these studies is the Teplitzky, Thomas and Nogami report published in 1988. This report was based on a survey and interviews of just 149 dual Army officers. In this survey 86% of those officers believe that the Army can count on dual Army couples in the event of an emergency or deployment. This is a strong level of agreement and men held this belief more strongly than women. However, the remaining 14% of this sample did not believe the Army could count on dual Army couples in the event of an emergency. Although this is a small percentage it is nonetheless significant. This significance is amplified when one considers that the population in this sample consisted exclusively of dual Army officer couples. A reasonable assumption would be that this group would be sympathetic and supportive of dual Army couples. Secondly, the officer corps is the bastion of commitment to selfless service. If this group of officers have this level of doubt about themselves as a group, what conclusions could be reasonably drawn about the commitment of the much larger group of enlisted dual Army couples?

In the same survey this group expressed much less support for Army requirements in the day-to-day conflicts between Army/unit/career needs and family commitments. This has a much larger implication for impacting readiness on a

daily basis (i.e. reduced commitment to training). This study concludes that "dual Army career officers enjoy their work and like Army life, but the demands of dual Army career lifestyle appear to be perceived by many as being incompatible with family goals." (2) The conflict between service and family commitments is common to all service members. This conflict is compounded when both spouses are service members.

In 1982 the General Accounting Office conducted a study of sole and inservice parents and in part concluded:

"As noted earlier, some major and unit commanders contend that sole and inservice parents will not be readily available or available at all in the event of war or a national emergency. Data we gathered from firstline supervisors and sole and inservice parents, however, disclosed that, while some problems may exist, most sole and inservice parents included in our survey would deploy in a timely manner. However, when compared to sole and inservice parents, supervisors believed that the service members included in our survey who were neither sole parents nor inservice parents would most likely be present and punctual in the event of a war or national emergency." (3)

As can be seen from the above the GAO report found that most dual Army couple parents would be available in the event of war. A logical extension of this would be that most (probably a greater percentage) dual Army couples that are not parents would be available. The important point in this study that is easily overlooked is contained in the last sentence quoted above. Although most dual Army couple parents will be available, first line supervisors generally feel that their response will be less than that of either

their single or married to a non-service member counterpart.

There was remarkable consistency in the findings of the GAO study, the results of the ARI survey and a survey of former battalion and brigade commanders conducted at the USAWC in 1989-1990. In analyzing the War College survey results LTC Marino concluded "... That most dual Army parents, in the view of former senior commanders, can and will respond to deployments with at least the same degree of reliability as other soldiers/officers."(4) In reference to actual hostilities Marino concluded: "The majority (57.9%) indicated that their dual-military parents would proceed with mission requirements thereby properly executing their family care plans. The remaining 42.1% of the respondents indicated that they felt that one or both members would, in essence, put family considerations above the mission and absent themselves for either a long or short term (time not defined in the survey)."(5)

There are two common threads in these three reports. The first is that dual military couples as a group are performing as well or better than their single and married not to a service member counterparts. This includes short term deployments to meet training/contingency requirements. The second is that in each study a distinct group (first line supervisors, dual Army couples, former commanders) predicts that the response of dual Army couples in the event of war will be less than that of their counterparts. Short of actual war we will never know if these predictions are

accurate. If the predictions are correct, will the lower response of dual Army couples make a significant difference in the outcome? At what level does it become significant? Again, only war will provide a complete answer to these questions.

Some dual Army couples will respond to the call. Some will not. The dilemma for the Army is to identify who will and who will not respond as required in the event of war. This applies equally to all soldiers. It would be improper to discriminate against all dual Army couples because of a prediction that some will not perform their duty as expected.

ENDNOTES

1. Brain Mitchell, Weak Link: The Feminization of the American Military, p.92
2. Teplitzky, Thomas and Nogami, p.viii
3. General Accounting Office, Army Needs Better Data to Develop Policies for Sole and Inservice Parents, p.8
4. Marino, Charles Jr, LTC, Sole Parents and Their Impact on Readiness, p.42
5. Ibid, p.42

CHAPTER IV
PROFESSIONAL DEVELOPMENT ISSUES

"The goal of the Officer Professional Development System is to strengthen and fortify the will, character, knowledge and skills of those who lead and support soldiers... Our capacity to defend our Nation and to preserve the vitality of the Army of tomorrow depends on the state of officer development today."(1)

All leaders work, train, and prepare themselves very hard for something they hope will never happen -- war. Our preparedness for war is to a large measure dependent upon the collective professional development of the officer and NCO Corps. The best weapons become impotent in the hands of soldiers who are not technically and tactically competent. Competence does not just happen. It is the product of individual study, institutional training and education, and assignments and experience. Professional development programs for officers and NCOs must blend these elements to produce the tactically/technically competent leaders our nation demands for our soldiers. This must be done over the span of a career.

What is the impact of dual Army couples on the professional development of the members of the couple? Since there is no exact measure of the state of professional development, the impact cannot be directly accessed. However, a close examination of the professional development

requirements and processes can yield some conclusions. This chapter will focus on professional development and the implications of this process on dual Army couples. Primary emphasis will be on officer professional development. Enlisted professional development will also be addressed, but in less detail.

D.A. Pamphlet 600-3, Commissioned Officer Professional Development and Utilization, provides a guide to the Army's process for officer professional development. In it each branch proponent outlines the role of the branch in the Army, basic skills of specialties within the branch, professional development objectives and, most importantly, basic branch qualification criteria. Basic branch qualification is normally a prerequisite for promotion to major. To detail the professional development requirements for each branch is beyond the scope of this paper. Additionally, it is the common requirements/demands that are of interest to this study. A generic professional development career model developed by Personnel Command is provided in the appendix (p.41). A thorough review of this model in conjunction with D.A. Pam 600-3 reveals that the professional development demands placed upon the officer corps are significant. Consider the following list of requirements at company grade level:

Professional Military Education: OBC, OAC, CAS3,
technical courses as appropriate for assignment/branch.

Civilian Education: B.A. required, Masters recommended

Experience: Platoon leader, Company Commander, battalion staff, Recruiting, Readiness Group, or ROTC (for some), functional area assignment for those officers with a functional specialty.

To narrow the focus further, consider what may be expected of a Captain: Complete OAC and CAS3, company command, battalion staff experience, advanced civil schooling (for some), functional area assignment, and/or a nominative assignment(3R). The difficulty in completing these requirements is complicated by the time frame (3.5 to 10 years of service) involved. This means as a captain an officer will normally be eligible for reassignment by PERSCOM to an area capable of satisfying career progression needs only twice, occasionally three times. Indeed we are asking captains to accomplish a great deal in just two assignments.

How are dual Army couples affected by this?

Intuitively, it becomes more difficult to satisfy the separate professional needs of the members of a couple and accommodate a joint domicile assignment as they progress in rank. To the couple, which is more important the career enhancing assignment or a joint domicile? In the Teplitzky survey 78% of the men and 88% of the women rated joint domicile as a very important career decision factor (2)

This report also states:

"Obtaining career enhancing joint domicile assignments is another problem for dual military career couples. Both males and females are reluctant to endure long separations from their spouses preferring to have one or both spouses

leave the services. Since both men and women tend to give the husbands' career the higher priority in dual career families, career conflicts are more likely to result in the departure of the wife than the husband"(3)

This tendency may partially account for the higher long term retention rate among men. For example, "in 1978, 89.1% of DOD officers were men and 10.9% were women. In 1988, 50.5% of the men and 41.9% of the women remained."(4) Army continuation rates are consistent with this.

Inevitably, dual Army couples are faced with a dilemma: take the right job and endure a long separation, or accept a less desirable job and maintain the joint domicile or have one member separate. The direct impact of this on readiness is not measurable. But those officers that have accepted a less than optimum professional development path will not (due to a lack of experience) as a group be capable of making the same level of contributions to their unit as their counterparts that are not faced with this dilemma. If this were not true then the whole concept of professional development through a series of assignments to positions of increasing responsibilities is falsely based. Of course there will be exceptions based upon the unique characteristics of the individuals involved. It also appears likely that those units with a high density of women will be affected most. This stems from the disproportionate participation of female soldiers in dual Army couples and the tendency to sacrifice the female's career for the male's. This tendency to place the male's career ahead of the

female's may flow from the fact that the male is usually senior and, therefore, has the greater investment in his career. It may also stem from social pressures revolving around the traditional sex roles. Regardless of the source, the tendency to put the male career ahead of the female career is strong. As a professional development officer at MILPERCEN I counseled no less than 50 dual Army couples on their professional development needs and, in the process, noted the almost overwhelming tendency to place the male career first. This observation is supported by the study noted above and others.

Army Regulations 614-200, Selection of Enlisted Soldiers for Training and Assignment, 600-200, Enlisted Personnel Management, and 350-17, Noncommissioned Officer Development Program must be used together to draw a full understanding of the professional development requirements for NCOs. There are many parallels in the progressive nature of professional development between officers and NCOs. For example the formal military education requirements for NCOs begins with PLDC and progresses through BNOC, ANOC, 1SG Course to the Sergeants Majors Academy. Assignments to positions of progressively greater responsibility are also remarkably similar. However, the promotion system in the enlisted ranks is somewhat more forgiving for NCOs that do not follow the traditional path. Nonetheless, at the senior enlisted ranks the ability of the personnel system to match grade and MOS requirements with the professional development needs of a

couple at a joint domicile location is limited. Enlisted couples, like officer couples are probably more willing to sacrifice the professional development of one member rather than endure a long separation. Given that the male is usually the senior member it is more likely that the females development will be sacrificed. The effect of this phenomenon on a unit's readiness is essentially the same for officers and NCOs. The direct effect on units is that they receive leaders whose professional development has been tempered/restricted by family considerations above and beyond that associated with a single or married to a non-member leader. It is impossible to place a quantitative value on the level of professional development. Additionally, a soldier's value to a unit is not determined solely by the state of his professional development. However, it is reasonable to conclude that the cumulative effect of all the opportunity costs associated with selecting a joint domicile over a career enhancing assignment by dual Army couples is significant to the Army as a whole. At the individual unit level this effect is probably unnoticed.

ENDNOTES

1. Bagnal, Charles W, Professional Development of Officers Study, Office of the Chief of Staff of the Army, Washington D.C., February 1985, p.7
2. Teplitzky, Thomas and Nogami, p.19
3. Ibid, p.8
4. Office of the Assistant Secretary of Defense for Reserve Affairs, Military Women in the Department of Defense, p.18

CHAPTER V

CONCLUSIONS

I have reached the following conclusions based upon the research presented in this paper:

- o The vast majority of dual Army couples are professional, hard working, and dedicated.

- o Dual Army couples adversely affect readiness in two ways:

- Dual Army couples and in particular dual Army couple parents are not as likely to be immediately available and responsive to national emergencies/war as their single/married to non-military counterparts.

- The conflicting requirements for joint domicile vice career developing assignments produces a professional development shortfall for at least one member of the couple. Units may suffer from the assignment of these personnel to leadership positions.

- o It is impossible to directly measure the impact of the above. In all likelihood it is not a major distractor to readiness and simply be a cost of doing business.

- o Most dual Army couples decide early in the relationship which member's career will be given priority and which will be second consideration in the joint domicile

assignment process.

o It is impossible to identify either those dual Army couples that are negatively impacting readiness or those positively impacting readiness. It would be improper/unfair to develop policy for a group based on the expected low performance of some.

CHAPTER VI
RECOMMENDATIONS

The following recommendations are submitted for consideration:

- o That the Army continue its current policy in regard to joint domicile assignments.

- o The Deputy Chief for Personnel, Headquarters, Department of the Army should prepare a counseling checklist for supervisors of members of dual Army/service couples. The primary purpose of the checklist would be to ensure that members are made aware of joint domicile/development dilemma early in their career. Secondly, that supervisors are made aware of this dilemma and its ramifications so that they can properly counsel soldiers.

- o The Army has requested authority to conduct a voluntary Reduction in Force Program (RIF). Should this authority be granted and it becomes necessary to conduct a RIF, and if volunteers exceed requirements, then dual Army couple status should be given some priority in the selection process.

APPENDIX 1

01-30-89 09:12 T-

DMDC MNTY

#521 P02

1146 000001, JANUARY 89, 13PM

ENLISTED

			RANK										TOTAL
			E-1	E-2	E-3	E-4	E-5	E-6	E-7	E-8	E-9		
SEX	MAR STATUS	DEP STATUS											
MALE	SINGLE	NO DEPS	3983	36269	63307	64631	23834	80411	22921	610	190	158633	
		WITH DEPS	1631	2501	4341	18391	17381	20641	17981	505	1451	86281	
		TOTAL	39013	165281	63741	831701	256321	101071	44901	11151	2751	267281	
	MARRIED TO WOMEN	DEP STATUS											
		NO DEPS	26481	43431	32711	301251	206411	98941	36541	9721	4331	220641	
		WITH DEPS	30321	40441	19071	361741	545921	579971	384311	217731	33561	2133021	
	TOTAL	57301	8387	121781	682991	752341	678311	420851	227431	38091	3013581		
	MARRIED TO OFFICER	DEP STATUS											
		NO DEPS				18	31	81	42	31	41	148	
		WITH DEPS				31	14	54	63	30	11	178	
	TOTAL				21	45	95	105	41	151	323		
	MARRIED TO ENLISTED	DEP STATUS											
		NO DEPS	54	115	411	32101	32761	19901	5191	104	27	96961	
		WITH DEPS	111	81	371	6221	15831	20071	1081	274	901	55831	
	TOTAL	65	173	481	3831	48591	32871	18001	378	971	153791		
	TOTAL	DEP STATUS											
		NO DEPS	41589	40727	72930	117964	47845	19938	7107	1697	614	260531	
		WITH DEPS	3229	4317	8378	90350	57251	67042	41373	12580	3572	203788	
		TOTAL	44818	45044	81308	208321	105170	26640	11240	2957	971	464319	
FEMALE	SINGLE	DEP STATUS											
		NO DEPS	4784	5244	7504	12490	4330	2229	866	152	29	37608	
		WITH DEPS	30	78	149	851	818	987	201	10	1	2723	
	TOTAL	4814	5320	7653	13341	5148	3216	1067	162	30	40331		
	MARRIED TO WOMEN	DEP STATUS											
		NO DEPS	353	560	1080	3339	1807	956	344	50	8	8167	
		WITH DEPS	360	518	808	3361	2592	1488	496	56	6	9484	
	TOTAL	713	1078	1888	6700	4399	2444	840	106	14	18651		
	MARRIED TO OFFICER	DEP STATUS											
		NO DEPS				22	39	41	26	4		133	
		WITH DEPS				3	12	24	17	2		58	
	TOTAL				25	51	65	43	6		191		

(CONTINUED)

APPENDIX 1

01-30-89 09:13 T-

APPENDIX 1
DMDC MNTY

H521 P03

1142 AUGUST, SEPTEMBER 27, 1989

ENLISTED

			RANK									TOTAL	
			E-1	E-2	E-3	E-4	E-5	E-6	E-7	E-8	E-9		
SEX	MAR STATUS	DEP STATUS											
FEMALE	MARRIED TO ENLISTED	NO DEPS	491	2111	684	4832	3047	1673	4051	301	51	10917	
		WITH DEPS	91	231	51	931	1361	3781	3701	191	21	36901	
		TOTAL	581	2341	715	5761	4403	2051	7751	491	71	146071	
	TOTAL	DEP STATUS											
		NO DEPS	51861	6015	92491	211531	92131	48591	16321	2361	421	516251	
		WITH DEPS	3991	6171	10081	51471	47281	30771	10831	871	91	161551	
		TOTAL	55851	66321	102571	263001	139411	79361	27151	3231	51	737801	
	TOTAL	MARRIED TO SINGLE	DEP STATUS										
			NO DEPS	43621	41513	70811	97121	28214	10312	37481	762	1391	286241
			WITH DEPS	2181	3351	582	20901	25561	26111	15931	515	1461	11351
		TOTAL	438371	418481	713941	995111	307701	129231	57471	13771	2581	3076121	
			MARRIED TO NON MIL	DEP STATUS									
NO DEPS				30511	49031	103511	339241	224611	106501	39981	10221	4611	910211
WITH DEPS				33921	45621	47151	415251	571821	594851	32926	118271	33621	2287861
TOTAL		64431		94651	150661	754091	795331	700351	429241	128491	38231	3200071	
MARRIED TO OFFICER		DEP STATUS											
		NO DEPS			21	401	701	821	681	181	41	281	
		WITH DEPS				51	261	781	801	581	111	3331	
		TOTAL			21	461	761	1601	1481	471	151	361	
MARRIED TO ENLISTED	DEP STATUS												
	NO DEPS	1031	3261	10751	80421	65231	36531	9251	1341	281	205131		
	WITH DEPS	201	311	881	15541	28891	22861	14511	2831	521	63731		
	TOTAL	1231	3571	11631	95961	94121	59391	23761	4271	801	268861		
TOTAL	DEP STATUS												
	NO DEPS	467751	467421	822391	1392311	570581	248971	87391	19331	6661	4081761		
	WITH DEPS	36281	49281	93861	454851	627531	65259	424501	126591	35811	2495131		
	TOTAL	504031	516701	916251	1847161	1197111	300661	511951	146001	42371	6581891		

APPENDIX 1

OFFICER												
NAME												

01-30-89 09:14 T-

APPENDIX 1

DMDC MNTY

#521 P05

	INITE DEPS	8751	25891	16227	12211	87561	35301	1531	961	701	81	44801
TOTAL		98231	114761	238621	153621	100361	41691	202	1461	421	131	801371
INMAGE	INAF	DEP STATUS										
	STATUS											
ISINCE	INC DEPS		15111	12911	19611	5661	2571	671	.1	.1	.1	56461
	INITE DEPS		191	211	1021	481	241	61	.1	.1	.1	2191
TOTAL			15301	1312	20531	6161	2811	721	1	.1	.1	5665
INMAGE	INC STATUS											
	ITO NOR											
INIL	NO DEPS		3091	4461	7571	7251	831	171	.1	.1	.1	18371
	WITH DEPS		781	1381	5611	3191	1711	181	.1	.1	.1	12361
TOTAL			3871	5841	13151	5461	2041	351	11	.1	.1	30731
INMAGE	INC STATUS											
	ITO											
INPEICE	NO DEPS		1151	4071	10341	3541	891	31	.1	.1	.1	20081
	WITH DEPS		11	121	2301	1631	451	51	.1	.1	.1	4631
TOTAL			1161	4191	12721	5171	1341	121	.1	.1	.1	24701

(CONTINUED)

APPENDIX 1

OFFICER

			RANK											
			001	002	003	004	005	006	007	008	009	010	TOTAL	
INAR	INAR	ICP STATUS												
	STATUS													
MARKED														
	MARKED	NO DEPS	271	621	1251	341	61	1	1	1	1	1	1	2471
	TO													
	REMARKED	WITH DEPS	41	91	561	181	41	1	1	1	1	1	1	911
		TOTAL	311	611	1821	541	101	1	1	1	1	1	1	3381
	TOTAL	ICP STATUS												
		NO DEPS	1941	2191	3061	1181	4351	931	11	1	1	1	1	9731
		WITH DEPS	1021	1801	9571	5481	1941	241	11	1	1	1	1	2001
		TOTAL	2961	2371	4021	1731	6291	1171	21	1	1	1	1	11741
TOTAL	INAR	ICP STATUS												
	STATUS													
	SINGLE	NO DEPS	8321	6321	7541	1721	681	2341	91	21	11	1	1	248151
		WITH DEPS	561	691	3821	2941	1941	691	11	1	1	1	1	10031
		TOTAL	8881	7011	11361	20151	8751	3031	101	21	11	1	1	258481
	MARKED	ICP STATUS												
	TO NEW													
	WIL	NO DEPS	23471	4031	6861	18851	3641	481	411	471	211	41	1	166481
		WITH DEPS	911	2591	16701	120101	85441	34381	1511	991	191	81	1	438761
		TOTAL	32581	6621	22561	132961	93841	39791	1921	1481	401	121	1	605241
	MARKED	ICP STATUS												
	TO													
	ICP STATUS	NO DEPS	2011	6451	13611	6561	1941	511	1	1	1	1	1	37571

01-30-89 09:15 T- APPENDIX 1
DMDC MNTY #521 P07

WITH DEPS	21	541	610	4301	1971	361	21	.1	.1	.1	13231
TOTAL	2031	7391	75711	11151	3811	671	21	.1	.1	.1	5019
MAPING	DEP STATUS										
TO											
VERLISE	INC DEPS	341	751	1731	431	61	.1	.1	.1	.1	3311
WITH DEPS		91	201	921	281	51	.1	.1	.1	.1	1611
TOTAL		431	951	2651	681	111	.1	.1	.1	.1	4821
TOTAL	DEP STATUS										
NO DEPS		10910	111131	166071	43341	27361	7461	501	491	221	61 (54711
WITH DEPS		9771	27391	171841	127591	89301	35421	1541	991	201	81 464121
TOTAL		118471	138521	336911	170931	106651	42881	2011	1481	421	131 915831

APPENDIX 1

APPENDIX 1

01-30-89 09:15 T-

DMDC MNTY

H521 P08

1-12 MONDAY, JANUARY 29, 1990

MANDEAT

			RANK				TOTAL
			M01	M02	M03	M04	
SEX	IMAR STATUS	DEP STATUS					
MALE	SINGLE	NO DEPS	599	598	172	191	1460
		WITH DEPS	281	179	113	85	600
		TOTAL	879	777	285	276	2060
	MARRIED TO NON MIL	NO DEPS	734	696	287	247	1964
		WITH DEPS	1213	445	316	194	1968
		TOTAL	1947	1141	603	441	3932
	MARRIED TO OFFICER	NO DEPS	4	38	33	11	86
		WITH DEPS	31	46	98	23	110
		TOTAL	35	84	131	34	196
	MARRIED TO EMPLOYED	NO DEPS	60	38	10	1	99
		WITH DEPS	37	85	31	3	156
		TOTAL	97	123	41	4	255
	TOTAL	NO DEPS	1391	1370	502	384	3647
		WITH DEPS	1801	670	456	223	2950
		TOTAL	3192	2040	958	607	6597
FEMALE	SINGLE	NO DEPS	83	30	25	1	139
		WITH DEPS	2	14	3	.	19
		TOTAL	85	44	28	1	158
	MARRIED TO NON MIL	NO DEPS	27	34	9	2	72
		WITH DEPS	18	39	9	.	66
		TOTAL	45	73	18	2	138
	MARRIED TO OFFICER	NO DEPS	5	19	17	.	41
		WITH DEPS	.	9	5	.	14
		TOTAL	5	28	22	.	55

(CONTINUED)

APPENDIX 1

APPENDIX 1

01-30-89 09:16 T-

DMDC MNTY

#521 P09

1-42 MONDAY, JANUARY 29, 1990 6

VARIANT

			RANK				TOTAL
			P01	P02	P03	P04	
SEX	MAR STATUS	DEP STATUS					
FEMALE	MARRIED TO ENLISTED	NO DEPS	221	131	31		441
		WITH DEPS	71	261	31		341
		TOTAL	291	431	61		781
	TOTAL	DEP STATUS					
		NO DEPS	1051	1621	341	31	3241
		WITH DEPS	241	861	161		1241
		TOTAL	1291	2501	501	31	4521
TOTAL	SINGLE	DEP STATUS					
		NO DEPS	6501	6681	1971	801	16151
		WITH DEPS	301	1881	1141	851	4171
		TOTAL	6801	8751	3111	1651	20321
	MARRIED TO NON MIL	DEP STATUS					
		NO DEPS	7651	7301	2461	2491	20001
		WITH DEPS	12281	45241	31751	14941	10681
		TOTAL	19931	52541	34711	19431	12661
	MARRIED TO OFFICER	DEP STATUS					
		NO DEPS	91	571	501	111	1271
		WITH DEPS	31	551	431	231	1241
		TOTAL	121	1121	931	341	251
	MARRIED TO ENLISTED	DEP STATUS					
		NO DEPS	721	571	131	11	1431
		WITH DEPS	441	1111	321	31	1901
		TOTAL	1161	1681	451	41	3331
	TOTAL	DEP STATUS					
		NO DEPS	14961	15321	5961	3411	39251
		WITH DEPS	13051	48781	33641	18061	113521
		TOTAL	28011	64101	93201	21471	152771

APPENDIX 1

APPENDIX 1

01-30-89 09:16 T-

DMDC MNTY

H521 P10

11:42 MONDAY, JANUARY 29, 1990 11

TOTAL

			TOTAL
SEX	MAR STATUS	DEP STATUS	
MALE	SINGLE	NO DEPS	219270
		WITH DEPS	94721
		TOTAL	299142
	MARRIED TO NON MIL	DEP STATUS	
		NO DEPS	98753
		WITH DEPS	272500
		TOTAL	371253
	MARRIED TO OFFICER	DEP STATUS	
		NO DEPS	1983
		WITH DEPS	3145
		TOTAL	3128
	MARRIED TO ENLISTED	DEP STATUS	
		NO DEPS	98791
		WITH DEPS	50991
		TOTAL	157781
	TOTAL	DEP STATUS	
		NO DEPS	309906
		WITH DEPS	309416
		TOTAL	679321
FEMALE	SINGLE	DEP STATUS	
		NO DEPS	43421
		WITH DEPS	2969
		TOTAL	46390
	MARRIED TO NON MIL	DEP STATUS	
		NO DEPS	10476
		WITH DEPS	10985
		TOTAL	21461
	MARRIED TO OFFICER	DEP STATUS	
		NO DEPS	2182
		WITH DEPS	534
		TOTAL	2716

(CONTINUED)

APPENDIX 1

APPENDIX 1

01-30-89 09:17 T-

DMDC MNTY

#521 P11

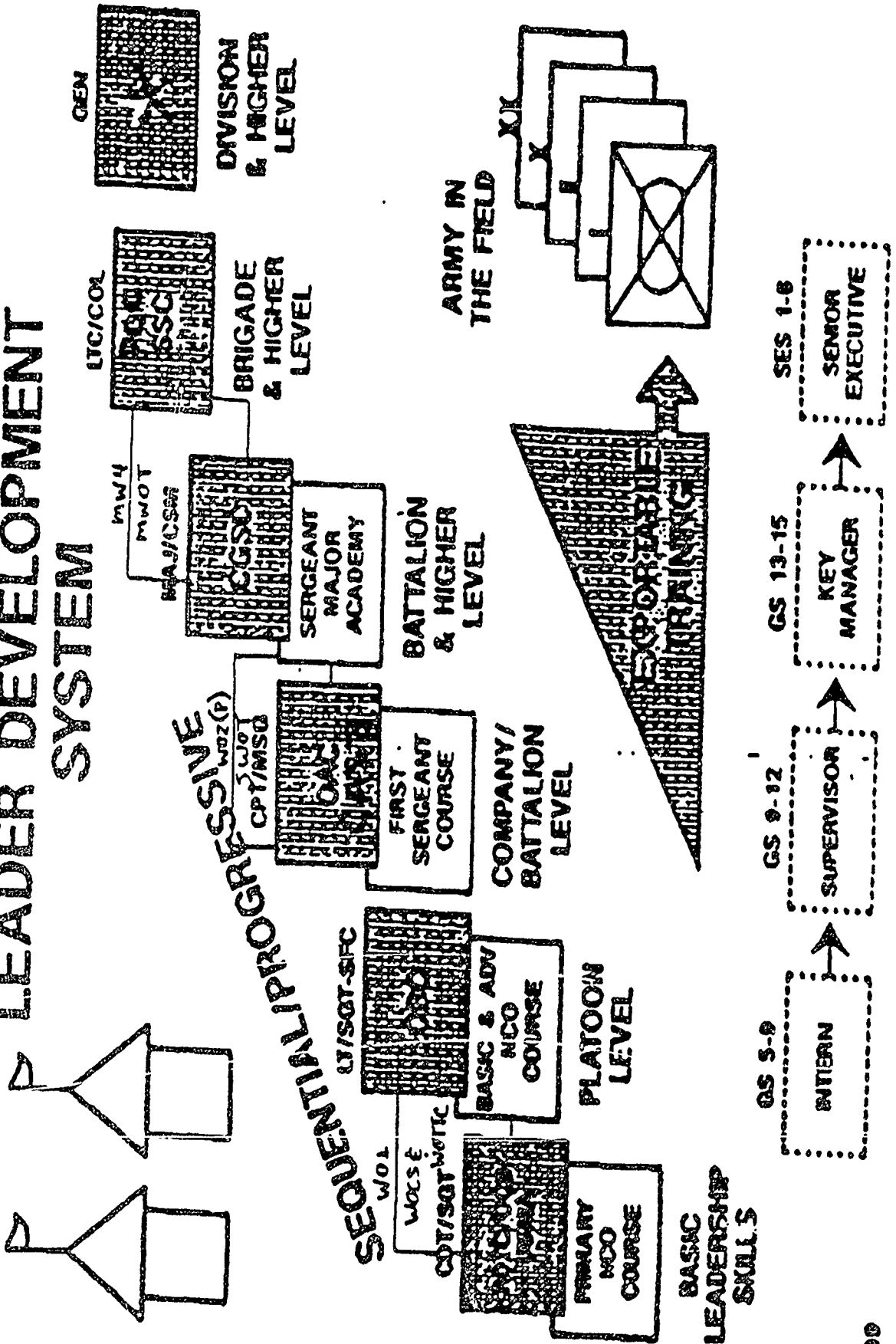
11:43 MONDAY, JANUARY 29, 1990 13

TOTAL

			TOTAL
SEX	MAR STATUS	DRP STATUS	
FEMALE	MARRIED TO ENLISTED	NO DRPS	11208
		WITH DRPS	3815
		TOTAL	15023
	TOTAL	DRP STATUS	
		NO DRPS	67887
		WITH DRPS	18251
		TOTAL	86138
TOTAL	MARR STATUS	DRP STATUS	
		NO DRPS	32269
		WITH DRPS	1283
		TOTAL	33552
	MARRIED TO NON ENL	DRP STATUS	
		NO DRPS	109629
		WITH DRPS	283483
		TOTAL	393112
TOTAL	MARRIED TO OFFICER	DRP STATUS	
		NO DRPS	4165
		WITH DRPS	1679
		TOTAL	5844
	MARRIED TO ENLISTED	DRP STATUS	
		NO DRPS	21087
		WITH DRPS	9714
		TOTAL	30801
TOTAL	DRP STATUS		
		NO DRPS	457672
		WITH DRPS	307777
		TOTAL	765449

APPENDIX 1

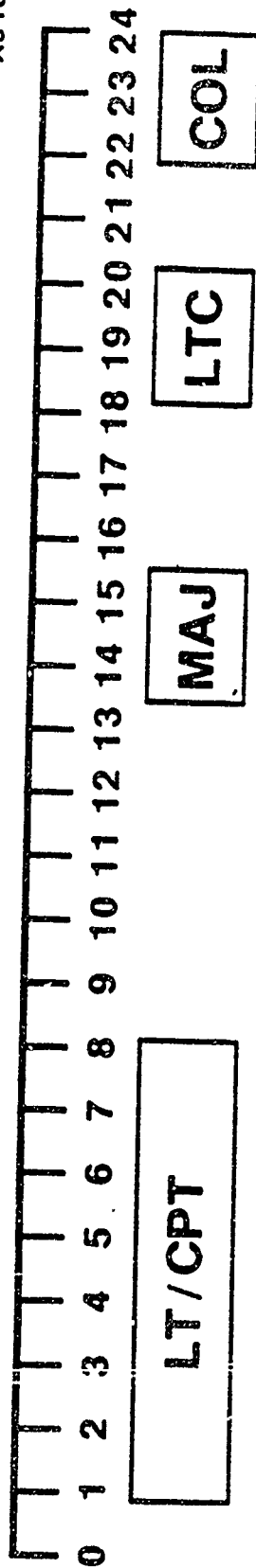
LEADER DEVELOPMENT SYSTEM



A318.04

COMPONENTS OF A CAREER

A318.04

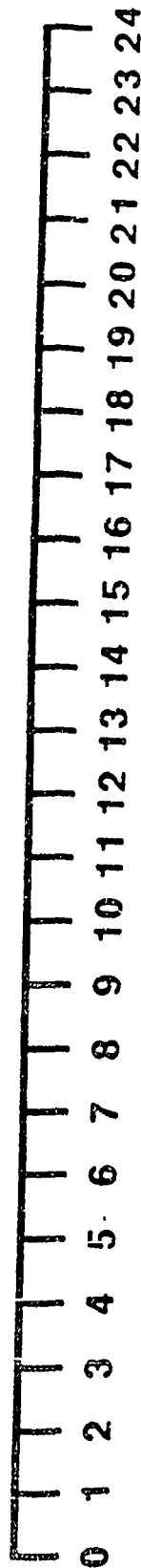


APPENDIX 2

TROOP TIME



MILITARY SCHOOLS



BIBLIOGRAPHY

1. Bagnal, Charles W. Professional Development of Officers Study. Washington: Office of the Chief of Staff of the Army, February 1985.
2. Holm, Jeanne Women in the Military. Novato: Presidio Press, 1982.
3. Lakhani, Hyder A. Career Decisions of Dual Career Couples: An Interdisciplinary Approach. Alexandria: U.S. Army Research Institute for the Behavioral and Social Sciences, December 1982.
4. Landrum, Cecile S. The Conflicts Surrounding Family and Children versus Mission Responsibilities. Monterey: Naval Postgraduate School, May 1979.
5. Marino, Charley Jr., LTC, Sole Parents and Their Impact on Readiness. Carlisle Barracks: U.S. Army War College, December 1989.
6. Mitchell, Brian Weak Link: The Feminization of the American Military. Washington: Regnery Gateway, 1989.
7. Rogan, Helen Mixed Company: Women in the Modern Army. New York: G.P. Putnam's Sons, 1981.
8. Rustad, Michael Women in Khaki. New York: Praeger Publishers, 1982.
9. Squillace, Ralph C., LTC, Direct Combat Probability Coding and Its Effect on Officer Leadership in the Signal Corps. Carlisle Barracks: U.S. Army War College, May 1986.
10. Teplitzky, Martha L. Dual Army Career Couples Factors Related to the Career Intentions of Men and Women. Alexandria: U.S. Army Research Institute for the Behavioral and Social Sciences, July 1988.
11. Teplitzky, Martha L. The Effects of Work on Family Life: A Review and Analysis of the Literature. Alexandria: U.S. Army Research Institute for the Behavioral and Social Sciences, July 1988.

12. Teplitzky, Martha L., Thomas, Shelley A. and Nogami, Glenda A. Dual Army Career Officers: Job Attitudes and Career Intentions of Male and Female Officers. Alexandria: U.S. Army Research Institute for the Behavioral and Social Sciences, July 1988.

13. General Accounting Office, Army Needs Better Data to Develop Policies for Sole and Inservice Parents. Washington: Government Printing Office, September 1982.

14. Office of the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics, Military Women in the Department of Defense. April 1983.

15. Office of the Assistant Secretary of Defense for Reserve Affairs, Military Women in the Department of Defense. July 1989.

16. Office of the Army Deputy Chief of Staff for Personnel, Women in the Army Policy Review. November 1982.

17. U.S. Department of the Army. Army Regulation 614-100: Officer Assignment Policies, Details, and Transfers: Washington: 15 July 1984.

18. U.S. Department of the Army. Army Regulation 614-200: Selection of Enlisted Soldiers for Training and Assignment: Washington: 1988.

19. U.S. Department of the Army. Army Regulation 614-30: Oversea Service: Washington: 1988

20. U.S. Department of the Army. Army Pamphlet 600-3: Commissioned Officer Professional Development and Utilization: Washington: 29 August 1989.